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SIXTEENTH INTERNATIONAL DAIRY CONGRESS .

Held at Copenhagen, Denmark, September 3-7, 1962

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REPORT OF
THE DELEGATION OF THE UNITED STATES
3a TO THE SECRETARY OF STATE

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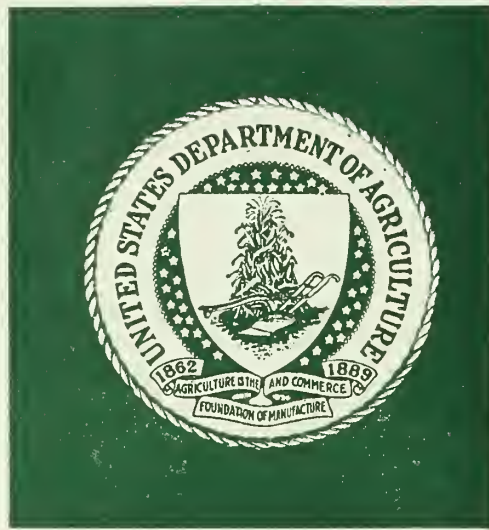
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LETTER OF SUBMITTAL

The Honorable
The Secretary of State

Dear Mr. Secretary:

I have the honor to submit herewith a report of the participation in the Sixteenth International Dairy Congress by the delegates representing the Government of the United States.

The Congress was held in Copenhagen, Denmark, September 3 to 7, 1962. The delegates of the United States to the Congress were designated under the authority of the President by the Department of State on August 17, 1962, pursuant to an invitation from the Government of Denmark to the Government of the United States to participate in this Dairy Congress. The appointments were transmitted to the Department of Agriculture by you.

A preliminary report was submitted to you at the close of the Congress meetings on September 8, 1962. The report herewith summarizes the work of the Congress and gives a brief account of the participation by delegates and individuals from the United States.

Respectfully submitted.

R. E. Hodgson, Delegate

October 26, 1962

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SIXTEENTH INTERNATIONAL DAIRY CONGRESS

COPENHAGEN, DENMARK, SEPTEMBER 3-7, 1962

REPORT OF THE DELEGATION OF THE UNITED STATES TO THE SECRETARY OF STATE

BACKGROUND

The Sixteenth International Dairy Congress meeting, the most recent in a series of such Congresses, was organized for the purpose of bringing together dairy leaders, scientists and technicians from throughout the world to exchange ideas and information that will improve and advance the world's dairy industry. The first such Congress was held in Belgium in 1903. Succeeding Congresses have been organized at approximately three year intervals.

The International Dairy Congresses are sponsored by the International Dairy Federation (IDF). Each Congress is organized by the National Committee of the International Dairy Federation of the country in which the Congress is held.

CONGRESS ORGANIZATION

The Sixteenth International Dairy Congress was organized by the Danish National Committee of IDF and by the Federation of Danish Dairy Associations under the patronage of His Majesty, King Frederik IX of Denmark. The Committee of Patronage was Mr. Viggo Kaupmann, Prime Minister, Mr. Jens Otto Krag, Minister of Foreign Affairs, Mr. Karl Skytte, Minister of Agriculture, all of Denmark; and Prof. A. M. Guerault, President, Prof. P. Kästli, Past President, and Prof. R. Mork, Past President, International Dairy Federation.

The following Committees made up the organization of the Danish National Committee:

Congress Executive Committee

S. Overgaard, President
V. Hornslet
Chr. Speggers
M. Sode-Mogensen
Aage H. Pedersen
L. Laursen
A. Busk
C. Christensen

Congress Secretariat

P. Kock Henriksen, Secretary General
Kris Frederiksen, Secretary

Contributions and Meetings Committee

M. Sode-Mogensen, Chairman
Sv. O. Koch
H. M. Jensen
A. N. Fisker
Aage H. Pedersen
K. P. Andersen
R. Kroun
Harald Jensen
Jörn Dohn
A. Gianelli
H. C. Bendixen
A. Jul Overby, Secretary

Programs Committee

Clemens Pedersen, Chairman
J. Oksen
A. Lundgaard

Reception and Hotels Committee

B. E. Winther, Chairman
E. Rosager

Excursion and Study Tours Committee

Sv. Fisker, Chairman
M. Friis
M. Munch
F. Lambertsen
E. Andersen
J. P. Voldby
S. Bjørnstad

Social Activities Committee

G. Sandø, Chairman
Knud W. Jensen
Carl Larsen
Knud Møller

Ladies Committee

Mrs. P. Kock Henriksen, Chairman
Mrs. D. Overgaard
Mrs. A. Speggers
Mrs. R. Christensen
Mrs. A. Sode-Mogensen
Mrs. I. Frederiksen
Mrs. T. Mathiassen
Mrs. R. Holmes

Press and Publicity Committee

A. Axelsen Drejer, Chairman
Poul Andreasen
M. Jeppesen
H. Ellert

Finance Committee

T. Mathiassen, Chairman
H. J. Kristensen
P. Kierkegaard

The Congress headquarters were in Christiansborg Palace (Danish Parliament Building) and the meetings were held there and in Børsen Palace (Royal Stock Exchange).

The official languages of the Congress were English, French and German. Simultaneous translation in English, French, German and Danish was made at all sessions except the opening ceremony. Mimeograph summary reports of the 20 sessions, 3 lectures and 6 symposia were made available to the members shortly after the conclusion of each meeting.

The official proceedings of the Congress, including the 371 technical papers, the lectures and symposia speeches, together with the discussions, etc., were published in four printed volumes. They were made available to all active registrants to the Congress.

PARTICIPATION IN THE CONGRESS

The work of organizing the Congress began in the spring of 1961 with the first announcement of the meeting, which announcement was forwarded to National Committees and Governments that are friendly to the Danish Government. This was followed by a request to interested countries to designate liaison officers with whom the Danish Secretariat could work. A general invitation was then extended to dairy scientists to submit titles and papers for inclusion in the technical program.

Liaison officers were appointed from 53 countries. Their work resulted in the acceptance of 371 technical papers that were included in the Congress program and published in the proceedings. It also resulted in collecting from various countries films, literature, etc., that were used at the Congress meetings. Official representation at the meetings came from 59 countries, and the registration of 3,060 active and passive members was accomplished before the meeting began.

PARTICIPATION OF THE UNITED STATES

The U. S. is one of the countries that is not a member of the IDF. Because of this, the Danish Government issued an invitation to the U. S. Government to be officially represented and to participate in the meetings as guests of the Government. The U. S. Government accepted this invitation and designated a group of dairy specialists to represent this country. Before this, liaison contact was established and a Planning Committee was formed in the U. S. Department of Agriculture to plan for the U. S. participation in the Congress meetings. R. E. Hodgson, Director, Animal Husbandry Research Division, Agricultural Research Service, served as the Liaison Officer and Chairman of the Planning Committee.

The Liaison Officer assisted the Secretariat in publicizing the meetings, collecting and submitting 22 technical papers from U. S. dairy scientists and 4 films from industry that were included in the program. He also assisted in registration of 89 active and passive members who attended the meetings and in the selection of 11 dairy scientists who served as officers on the program.

THE MEMBERSHIP OF THE U. S. DELEGATION

Following is a list of the members of the delegation designated by the Department of State to represent this country at the Congress meetings:

Delegate

Dr. R. E. Hodgson, Director, Animal Husbandry Research Division,
Agricultural Research Service, U. S. Department of Agriculture,
Beltsville, Maryland

Alternate Delegate

Mr. H. L. Forest, Director, Milk Marketing Orders Division,
Agricultural Stabilization Service, U. S. Department of
Agriculture, Washington, D. C.

Advisory Delegates

Dr. B. H. Webb, Chief, Dairy Products Research Laboratory,
Eastern Utilization Research and Development Division, Agricul-
tural Research Service, U. S. Department of Agriculture,
Washington, D. C.

Mr. H. L. Koeller, Agricultural Attache, American Embassy,
Foreign Agricultural Service, U. S. Department of Agriculture,
Copenhagen, Denmark (Secretary)

Dr. I. W. Rupel, Head, Department of Dairy Science, Texas
Agricultural and Mechanical College, College Station, Texas

Dr. D. V. Josephson, Head, Department of Dairy Science,
Pennsylvania State University, University Park, Pennsylvania

Dr. P. R. Elliker, Head, Department of Bacteriology, Oregon
State College, Corvallis, Oregon

Prof. W. H. E. Reid, Professor of Dairy Manufacturing, Depart-
ment of Dairy Husbandry, University of Missouri, Columbia,
Missouri

Mr. E. M. Norton, Executive Secretary, National Milk Producers
Federation, 30 F Street N.W., Washington, D. C.

Mr. Robert H. North, Executive Vice President, International
Association of Ice Cream Manufacturers, 910 17th Street N.W.,
Washington, D. C.

PARTICIPATION OF U. S. DAIRY SCIENTISTS IN THE TECHNICAL PROGRAM

The Technical Program Committee of the Danish National Committee invited a number of U. S. dairy scientists to serve with those of other countries as officers in conducting the sessional meetings. All of those invited were present and participated. The names and offices in which they serve are as follows:

- (1) Section II - Liquid Milk - Subject 1 - Problems Connected with Oxidation and Related Off-Flavor in Liquid Milk.
Dr. D. V. Josephson, Pennsylvania State University,
University Park, Pennsylvania - Subject Deputy Chairman
- (2) Section II - Liquid Milk - Subject 2 - The Influence of Modern Processing Methods on the Bacteriological and Keeping Qualities of Liquid Milk - Dr. I. A. Gould, Ohio State University, Columbus, Ohio - Lecturer
- (3) Section III - Butter - Subject 2 - The Bacteriology and Biochemistry of Starters and Ripened Cream - Dr. P. R. Elliker, Oregon State University, Corvallis, Oregon - Subject Chairman
- (4) Section V - Condensed Milk and Milk Powder - Dr. R. E. Hodgson, USDA, Beltsville, Maryland - Chairman
- (5) Section V - Condensed Milk and Milk Powder - Subject 2 - Factors Influencing the Flavor and Keeping Quality of Condensed Milk and Milk Powder - B. H. Webb, USDA, Washington, D. C. - Discussor
- (6) Section VI - Ice Cream - Subject 2 - The Bacteriological and Hygienic Quality of Ice Cream and Principles of Control - Prof. W. H. E. Reid, University of Missouri, Columbia, Mo. - Lecturer
- (7) Section VII - Dairy Machinery - Subject 1 - Problems of Corrosion in Dairy Plants - Dr. A. W. Farrall, Michigan State University, East Lansing, Michigan - Discussor
- (8) Section VIII - Analysis and Control - Subject 2 - Detection of Antibiotics, Disinfectants, Fungicides, Insecticides and Similar Substances Harmful to the Quality of Milk and Dairy Products - (a) Dr. F. V. Kosikowski, Cornell University, Ithaca, New York - Lecturer; (b) Mr. H. O. E. Heineman, Pet Milk Company, St. Louis, Missouri - Discussor
- (9) Symposium III - Rindless Cheese - Technical and Economic Aspects - Dr. A. H. Johnson, National Dairy Research Laboratory, Glenview, Illinois - Speaker
- (10) Symposium VI - The Milk Cow in the Prospective of the Modern Animal Psychology - Dr. W. E. Petersen, University of Minnesota (Emeritus Professor), St. Paul, Minnesota - Speaker

In addition to the officer participation in the meetings, the U. S. participated in the discussions of the various subjects and symposiums of the Congress. The contribution and performance of the members from the U. S. serving in various capacities as officers

in the program and those who participated in the discussions were commendable and received the respect of the listeners.

HOST RECOGNITION BREAKFAST

The U. S. delegation, with the aid of official representation funds and financial assistance from The National Milk Producers Federation and The International Association of Ice Cream Manufacturers, held a breakfast meeting on September 6 to honor the members of the Danish National Committee, Danish Government officials and officers of the International Dairy Federation. The purpose was to extend the compliments of our Government and the dairy industry of the U. S. to these officials for the kind invitation to attend and participate in the Congress meeting.

This breakfast meeting was honored with the presence of Ambassador William McCormick Blair who kindly extended greetings and compliments to our guests. This was most appreciated by those present. The occasion offered an excellent opportunity for our people to become better acquainted with the guests present. A list of the people invited to this breakfast is as follows:

Danish Government

Mr. V. Brorson, Commissioner, Ministry of Agriculture

Congress Officials

Mr. Søren Overgaard, President, Congress Executive Committee
Mr. V. Hornslet, Permanent Under-Secretary of Agriculture
Mr. Chr. Speggers, Chairman, Federation of Danish Dairy Assns.
Professor M. Sode-Mogensen, Royal Veterinary & Agricultural College
Mr. Aage H. Pedersen, Director, Govt. Research Dairy, Hillerød
Mr. L. Laursen, Randers
Mr. A. Busk, President, Denmark's Dairy Technology Society
Mr. C. Christensen, Ryttergard, Nexø
Mr. P. Kock Henriksen, Director, Federation of Danish Dairy Assns.
Mr. Kris Frederiksen, Federation of Danish Dairy Assns.
Mr. Sv. O. Kock, Aarhus
Professor H. M. Jensen, Royal Veterinary & Agricultural College
Mr. A. N. Fisker, Govt. Research Dairy, Hillerød
Mr. K. P. Andersen, Govt. Research Dairy, Hillerød
Mr. R. Kroun, Mejeriet Enigheden, Aarhus
Mr. Harald Jensen, Svendborg
Mr. J. Dohn, Hillerød
Mr. A. Gianelli, Director, United Danish Butter Export Assns.
Professor H. C. Bendixen, Royal Veterinary & Agricultural College
Mr. A. Jul Overby
Mr. B. E. Winther
Mr. Sv. Fisker, Kollekolle, Vaerløse
Mr. G. Sandø, Danish Dairies' Joint Purchasing Co.
Mr. A. Axelsen Drejer, Central Cooperative Committee
Mr. T. Mathiassen, Director, Federation of Danish Dairy Assns.

Other Danish Officials

Mr. Anders Andersen, President, Agricultural Council
Mr. N. Kjaergaard, Director, Agricultural Council
Mr. Lars Aage Larsen, Chief of Office, Agricultural Council
Professor Aksel Milthers, Dean, Royal Veterinary & Agricultural
College
Mr. J. Dons-Christensen, Chairman, Federation of Danish
Cooperative Hog Slaughterhouses
Kammerherre G. Garth-Grüner, Chairman, National Federation of
Large Farmers Unions
Mr. Peter Jørgensen, Chairman, Federation of Danish Smallholders
Assns.
Mr. Chr. Werdelin, Director, Veterinary Directorate

International Dairy Federation

Professor A. M. Guerault, President
Professor P. Kästli, Past President
Mr. A. Conix, Vice-President
Mr. W. Ljung, Vice-President
Mr. J. J. Walker, Vice President
Professor H. Mulder
Mr. P. F. J. Staal, Secretary-General

FAO

Dr. K. V. L. Kesteven
Dr. H. Pedersen
Mr. R. Ellinger
Dr. M. Lamer

WHO

Dr. A. E. Charpentier

U. S. Delegation

Dr. Ralph E. Hodgson, Delegate
Mr. Herbert L. Forest, Alternate Delegate
Dr. Byron H. Webb, Alternate Delegate
Dr. P. R. Elliker, Adviser
Dr. D. V. Josephson, Adviser
Mr. Harold L. Koeller (Secretary)
Mr. Robert H. North, Adviser
Mr. E. M. Norton, Adviser
Professor W. H. E. Reid, Adviser
Professor I. W. Rupel, Adviser

Other U. S. Participants

Professor J. L. Albright, University of Illinois
Dr. F. J. Babel, Smith Hall, Purdue University
Mr. B. I. Christensen, Goshen, N. Y.
Mr. D. E. Eakle, West Allis, Wisconsin
Dr. F. Ely, Ohio State University
Dr. A. W. Farrall, Michigan State University
Mr. A. J. Ferm, Rockford, Illinois
Mr. H. Forster, Issaquah, Washington
Professor C. E. Georgi, University of Nebraska
Dr. I. A. Gould, Columbus, Ohio
Dr. Carl N. Hansen, Champaign, Illinois
Dr. G. E. Hawkins, Auburn University, Alabama
Dr. H. E. O. Heineman, St. Louis, Missouri
Professor E. O. Herreid, University of Illinois
Dr. J. H. Hetrick, Rockford, Illinois
Professor R. F. Holland, Cornell University
Mr. L. N. Hoopes, Oakland, Calif.
Mr. G. A. Houran, Poughkeepsie, N. Y.
Professor J. M. Jensen, Michigan State University
Dr. A. H. Johnson, National Dairy Research Laboratory, Glenview, Ill.
Mr. D. V. Josephson, Chicago, Illinois
Mr. R. B. Kocher, Madison, Wisconsin
Professor F. Kosikowski, Cornell University
Mr. M. Kroger, Pennsylvania State University
Mr. G. Lake, Detroit, Michigan
Mr. M. Longreen, Milwaukee, Wisconsin
Mr. E. Mikkelsen, Pleasantville, N. Y.
Mr. Donald E. Mook, De Witt, N. Y.
Dr. A. V. Moore, A & M College of Texas, College Station, Texas
Dr. W. E. Petersen, St. Paul, Minn
Dr. J. C. Purcell, Griffin, Georgia
Mr. G. W. Putnam, Chicago, Illinois
Mr. D. G. Sampson, Grand Junction, Colorado
Dr. W. F. Shipe, Cornell University, Ithaca, N. Y.
Mr. J. T. Stakes, Kirkwood, Missouri
Mr. L. H. Stinnett, U. S. Operations Mission to Sudan
Mr. J. Studl, Chicago, Illinois
Mr. E. J. Swanson, Macomb, Illinois
Mr. B. Szidon, Peoria, Illinois
Mr. G. Talbott, Dairyman's League Coop. Assn. Inc., New York
Dr. N. P. Tarassuk, University of California, Davis
Professor G. M. Trout, Michigan State University

U. S. Embassy

The Honorable William McCormick Blair, Jr., American Ambassador
Mr. William Root
Mr. Andrew W. Anderson
Mr. Charles F. Pick, Jr.
Lt. Col. M. C. Lockwood

CONGRESS OPENING CEREMONY

The official opening of the Congress took place in K. B. Hallen Hall at 10 A.M. September 3, 1962. Following the arrival of Their Majesties, King Frederik IX and Queen Ingrid, the welcome was given by Mr. S. Overgaard, President of the Congress. This was followed by a speech by Prof. A. M. Guerault, President of the International Dairy Federation. The Chairman of the Federation of Danish Dairy Associations presented an IDF flag to the International Dairy Federation, which was accepted by the Vice President, Mr. A. Conix of Belgium.

His Majesty, King Frederik IX, then formally opened the Congress with a short speech of welcome, calling attention of the members to the importance of the dairy industry to Denmark and to the world, and pointing out the important task to be accomplished at the Congress meetings.

The meeting was favored with music from the Bank of the Life Guard and a ballet performance by the Royal Ballet.

The opening ceremony was a most impressive occasion, especially because of its simplicity and effective manner of presentation.

TECHNICAL PROGRAM OF THE CONGRESS

The technical program was organized into 10 subject matter sections with two sessions each; three general lectures; six symposia; and six colleagues' meetings. Each subject matter section was chaired by a chairman who was in charge of the program of the section. Each session was chaired by a subject matter chairman and deputy chairman. A lecturer presented a review of the material included under the subject. This was a resume of the technical papers relating to the subject, submitted by authors from different countries, which are published in the Congress proceedings, together with the lecturer's own ideas and information pertaining to the subject. Following the lecturer's report, two different specialists opened the discussion on the subject, after which the subject was open for discussion and debate. Each subject discussion was presented in one to one and a half hours. All sessions were attended by large numbers of people.

The general lectures were presided over by a chairman and deputy chairman and the subject was presented by an international authority on the subject. No discussion followed the lecture. The symposia were organized and conducted in the same manner but with two prominent speakers, followed by a general discussion by the audience. The colleagues' meetings were informal group discussions over coffee by groups of people particularly interested in the subject selected for discussion.

All of the deliberations that took place in each of the organized meetings will be published in the concluding volume of the Congress proceedings.

RESUME OF THE TECHNICAL SESSIONS

Section I - Milk Production - Chairman, A. Hakelius, Sweden

Subject 1 - The Physiology and Biochemistry of Milk Secretion with Special Reference to Factors Influencing the Fat-Protein Ratio in Milk. Subject Chairman, G. Thieulin, France; Lecturer, J. A. B. Smith, Great Britain.

Some 250 people attended this meeting. After a thorough discussion of this important subject, the conclusions arrived at are summed up as follows: Breeding policies to be followed should insure that the protein content of milk, as well as the fat content, be maintained at a sufficiently high level. There was little desire to see the fat content of milk fall below current levels. Research on the physiology and biochemistry of milk secretion should be increased and intensified to produce information needed by breeders and farmers in producing milk of high nutritional value. The current increasing attention given to the composition of milk produced by different breeds of cattle was commended.

Subject 2 - The Influence of Conditions on the Farm on the Hygienic Quality of Milk - Subject Chairman, A. Zeilinger, Austria; Lecturer, C. K. Johns, Canada.

This subject was discussed with great interest by many of the 300 members in attendance. The general conclusions arrived at were that while it is essential to have good milking and milk handling equipment and cleaning and sanitizing materials, it is also equally essential that the persons operating the equipment in the production of milk be properly instructed and competent in their use to insure the production of high quality milk. Considerable discussion devolved around the relative merits of different chemical sanitizers and cleaners compared with steam, especially in relation to in-place milking equipment. In respect to the use of chemical sanitizers, the U. S., Canada, Australia, and New Zealand are in an advanced position.

Section II - Liquid Milk - Chairman, E. Capstick, Great Britain.

Subject 1 - Problems Connected with Oxidation and Related Off-Flavor in Liquid Milk - Subject Chairman, F. Oldenburg, Denmark; Lecturer, W. Ritter, Switzerland.

Some 400 members attended this meeting and, following the review of the papers by the lecturer and discussion leaders, there was lively general discussion. It was pointed out that the presence of copper from production sources or from contamination by equipment was a factor in producing oxidized flavors in milk and steps should be taken to avoid its presence in milk. Light exposure of milk in storage or during marketing also contributes to this deterioration of milk. Paper cartons and colored milk bottles, as well as addition of ascorbic acid, militate against oxidized flavors. Mr. Josephson, U. S., indicated that oxidized flavors in liquid milk in U. S. is largely eliminated by high temperature treatment of the milk for short periods during pasteurization and homogenization. The general conclusion was that (1) copper contamination be avoided; (2) milk should be protected from light; and (3) processing techniques that permit incorporation of oxygen be avoided.

Subject 2 - The Influence of Modern Processing Methods on the Bacteriological and Keeping Qualities of Liquid Milk - Subject Chairman, V. B. Bagdanov, USSR; Lecturer, I. A. Gould, U. S.

Several new methods for the treatment of milk for bacterial control were discussed. Swiss scientists indicated that ultra high temperature treatment might be useful for milk that must be transported long distances but in preliminary work there is need for better definition for this technique. Ultracentrifugation was mentioned by Belgium workers as a possibility for improving the bacterial quality of milk, but more work is needed on this technique. Likewise, ultrasonic treatment of milk looks promising but fundamental investigations are needed on possible biological changes that might occur in milk treated in this way. Reports were also made on progress in the use of sterilization of liquid milk and the aseptic filling of milk bottles and cartons as a means of reducing bacterial content of milk. The lecturer concluded the discussion by stressing the importance of suppressing the total bacterial numbers in milk by pasteurization or by other techniques without in any way altering or destroying the valuable nutrients.

Section III - Butter - Chairman, F. Pisula, Poland

Subject 1 - The Rheological and Textural Properties of Butter, Their Physico-Chemical Characterization and Technical Measures by Which These Properties Can be Changed - Subject Chairman, J. M. deMan, Canada; Lecturer, F. H. McDowall, New Zealand.

The papers reviewed on this subject dealt with the physical properties of the fat in butter as determined by X-ray differentiation studies. It was pointed out to the 200 attendants that only about 20 percent of the butterfat in butter is in a crystalline state. Exact understanding of this phenomenon is complicated by difficulty in interpretation of results of X-ray analysis in relation to differential thermal conditions.

In summarizing the discussion, the chairman suggested that the Commission of Studies of IDF study the need for a higher degree of standardization of methods for measuring the physical properties of butter and of the terms used to describe the properties measured.

Subject 2 - The Bacteriology and Biochemistry of Starters and Ripened Cream - Subject Chairman, P. R. Elliker, U. S.; Lecturer, Th. E. Galesloot, Netherlands.

Some 150 members attended this meeting. The papers reviewed by the lecturer included a discussion of the bacterial activity and the flavor producing products in the cultures. Special emphasis was given to the production of diacetyl to the malty flavor and to the yoghurt flavor that is produced in starters. The presence and differentiation of the various aroma-forming bacteria used in starters are important in determining the acceptability of their use in butter manufacture.

Section IV - Cheese - Chairman, O. Farny, Denmark.

Subject 1 - The Casein System of Milk, Including the Action of Coagulating Enzymes and Proteolytic Decomposition During the Ripening of Cheese - Subject Chairman, G. T. Pyne, Ireland; Lecturer, Börje Lindquist, Sweden.

Following the review lecture of the papers submitted on this subject, a lively discussion was held among the 300 members attending the session. The complex nature of the protein structure and its breakdown during curing of cheese were discussed, particularly with respect to the differences in nomenclature used by scientists of different countries. The need for understanding of the fractionation of casein in different cheeses during curing is apparent for practical use by cheesemakers in the improvement in the quality and acceptability of cheeses by consumers. To advance this understanding, uniformity in terminology and description of proteins and protein fractions must occur. The group requested the IDF Study Commission on Cheese to concern itself with work to bring about uniformity in the nomenclature for casein composition and the promotion of cooperation among scientists working on cheese.

Subject 2 - The Effect of the Acid Development on Properties of Cheese - Subject Chairman, H. A. Foy, New Zealand; Lecturer, P. Solberg, Sweden.

The lecturer and discussers of this subject brought out the following points which were agreed to by the 200 members in attendance: The calcium content of the milk has an important bearing on the quality of the resulting cheese; storage of milk, either raw or pasteurized, is important in the quality of cheese; great risks

occur in stored milk from the development of bacteriophage and this has a profound effect on the cheese. The control of acid development is a critical factor in the manufacture of uniform, high quality cheese of all types. This factor is of prime importance when considering mechanization and automation of the cheesemaking process. Mechanization and automation are highly important to the future economy of the cheese industry.

Section V - Condensed Milk and Milk Powder - Chairman, R. E. Hodgson, U. S.

Subject 1 - The Physico-Chemical Properties of Milk Powder and the Factors Influencing These Properties - Subject Chairman, J Servais, Belgium; Lecturer, P. Borgeaud, Switzerland.

After the lecturer reviewed the paper submitted under this subject for the 175 attendants, he gave his own views regarding the properties of milk powder required for satisfactory reconstitution. These properties are good solubility, dispersibility and wettability. The discussion indicated the need to distinguish between wettability and solubility. Standardization of methods for detection of protein denaturation in milk powder is needed. It was indicated that the phenomena of water capillarity and the swelling of protein oppose each other during reconstitution of milk powder. The discussions indicated that milk powder with good reconstitution characteristics can be made without adversely affecting nutritive properties. The group urged more research on the physio-chemical properties of milk powder.

Subject 2 - Factors Influencing the Flavor and Keeping Quality of Condensed Milk and Milk Powder - Subject Chairman, E. L. Crossley, Great Britain; Lecturer, E. Pijanowski, Poland

In reviewing the 13 papers submitted under this subject, the lecturer pointed out that the big problem with condensed milk remains the avoidance of gelation and age-thickening of the product. Browning also remains a problem. The development of sterilized concentrate milk products is coming into use and a number of processes make a very acceptable product. Efforts must continue to improve the storage life of these and other concentrate and dry milks, and to this end the group recommended a greatly increased research effort related specifically to the physio-chemical properties and the inter-reaction between the phospho-caseinate complex, whey proteins and lactose, and fat and protein.

Section VI - Ice Cream - Chairman, T. Nakae, Japan.

Subject 1 - The Influence of Stabilizers and Emulsifiers on the Quality of Ice Cream - Subject Chairman, E. Horelli, Finland; Lecturer, Odd Sjetne, Netherlands.

The discussions of this subject before about 150 attendants centered around the use of stabilizers and on methods of analysis. Investigations are underway in Denmark on the relation of fat distribution and destabilization during manufacture. New types of stabilizers and emulsifiers are needed. Problems exist in ascertaining the fat content, especially the free fat in hardened ice cream.

Subject 2 - The Bacteriological and Hygienic Quality of Ice Cream, and Principles of Control - Subject Chairman, C. Schiere, Netherlands; Lecturer, W. H. E. Reid, U. S.

The lecturer reviewed the papers included on this subject before the 100 attendants and indicated a need for more uniform standards for hygienic quality of ice cream. To this end the group concluded that there is a need for uniform international standards on bacteriological properties of ice cream. International and national bodies were urged to encourage studies in this field and to draw up standards suitable for international acceptance. Also, the problem of standardizing, sampling and testing methods should be similarly studied, especially relating to quick routine methods of analysis. Close cooperation between manufacturers and Public Health Agencies should take place to improve hygienic quality of ice cream in which the consumer can have high confidence.

Section VII - Dairy Machinery - Chairman, V. V. Kostygov, USSR.

Subject 1 - Problems of Corrosion in Dairy Plants - Subject Deputy Chairman, F. A. McGrath, Ireland; Lecturer, H. Arup, Denmark.

In the review of the papers on this subject by the lecturer and the discussion that followed among the 300 members present, it was pointed out that the improper use of cleansing materials is a principal cause of corrosion of equipment. Milkstone deposits are another important cause. The chemical composition and the concentration of detergents and sterilizers are important in keeping corrosion to a minimum and users must be thoroughly informed on their proper use. The use of plastics in milking equipment will increase even though it may not be as good as stainless steel, and plastics present some additional problems concerning corrosion. The uptake of air in solutions increases corrosion from oxygen activation. During the discussion it was brought out that chlorine should be used only in solutions of low temperature to avoid corrosion.

Subject 2 - The Application of Automation in the Dairy (Weighing-in, Processing, Packing and Distribution) - Subject Chairman, V. D. Surkov, USSR; Lecturer, J. Matthews, Great Britain.

Great interest in this subject was evidenced by the 400 people who attended the session. The papers reviewed by the lecturer indicated great progress in automation in dairy processing plants. Automation of cheesemaking and refrigeration for fluid use were

cited as examples. The great advantages of automation in increasing efficiency, reducing labor and improving quality of products were reviewed. The lecturer pointed out that for effective use of automatic continuous processing there is great need for more qualified staff people to handle the equipment and processes. Many new automatic processing machines are being developed. It was recommended that more attention must be given to the training of staff for operating such equipment.

Section VIII- Control and Analysis - Chairman, R. Bigorre, France.

Subject 1 - Methods and Principles for the Determination of the Bacteriological Quality of Milk as a Raw Material - Subject Chairman, R. G. Baskett, Great Britain; Lecturer, J. W. Pette, Netherlands.

A review of the papers by the lecturer before the 350 people who attended brought out the point that in determining the bacterial quality of milk, emphasis is changing from the total count of bacteria to determining the specific groups of bacteria. Better, more rapid methods of determination are needed. The time-honored reduction time tests are becoming obsolete. The conclusions arrived at were, where milk has been cooled to low temperature for long periods, it is desirable to preincubate samples before carrying out tests. New and improved rapid tests for identification and determination of specific species of bacteria are needed to advance the hygienic quality of milk.

Subject 2 - Detection of Antibiotics, Disinfectants, Fungicides, Insecticides and Similar Substances Harmful to the Quality of Milk and Dairy Products - Subject Chairman, J. Pien, France; Lecturer, F. V. Kosikowski, U. S.

In the report and discussion by the 450 attendants it was pointed out that the use of chemicals in agricultural and milk production, namely, the antibiotics, insecticides, fungicides and disinfectants is essential to economical high production of good quality foods. Proper use of these materials does not result in harmful foods. Very good progress has been made to protect foods from harmful residues. Methods of analysis for control purposes are available but are continually being refined and improved. The question of zero tolerances of certain chemicals in foods requires sane interpretation.

Radioactive fallout in foods is a serious problem receiving much attention and must be guarded against, especially in milk, although to date, except possibly in very isolated cases, the contamination is well below the levels thought to be serious. Strontium 90 in milk, as a ratio to the calcium, is much lower

than in plants and a decrease in milk consumption could increase the strontium to calcium ratio in the total diet.

The group concluded that there is great need for more research on methodology and on the procedure for protecting foods from harmful chemical contaminations; that a coordinated educational program be enlarged to advise users on the efficient use of chemicals; and that official bodies develop and interpret effective guidelines to advise producers and consumers on the use of chemicals and the wholesomeness of foods.

Section IX - Economy and Organization - Chairman, A. Linton, New Zealand.

Subject 1 - Marketing of Milk and Dairy Products - Subject Chairman, R. E. Moore, Australia; Lecturer, E. V. W. Esche, Germany.

This session was attended by about 250 people. The lecturer reviewed the papers and gave his own ideas regarding the problems of production and marketing and of different methods of market regulations, both national and international. Considerable discussion revolved around international cooperation on the solution of the problems of surpluses. One point of high interest posed by J. L. Davies of Great Britain was the question of the identification of who has the organizational and economic responsibility for the solution of the surplus problem--the farmer, the marketer or the government. Once the responsibility is set, the organization should be charged with the responsibility of discharging it. It was apparent that national interest was evident in much of the discussion, and, as usual, the question of dumping surplus dairy products was raised. Another point raised was the need for defining surplus--is it in excess of what is marketed or is it in excess of human needs? No easy answers were apparent.

Subject 2 - Production and Distribution of Dairy Products with Reference to Increased Productivity - Subject Chairman, H. Rautavaara, Finland; Lecturer, J. L. Davies, Great Britain.

In reviewing the contributions to this subject for about 300 attendants, the lecturer pointed out the need to increase efficiency of marketing operations. One way to accomplish this is in the milk delivery operations. A shift from daily delivery to six, five or only three deliveries per week may be possible. This is common in the U. S. The effect of less frequent delivery on sales must be watched in relation to economic returns. While improving operations to effect economies, great attention must be given to guard against deterioration in quality of product since that in itself can greatly affect sales and profits.

Section X - Dairying in Warm Countries - Chairman, D. N. Khurody, India.

Subject 1 - The Keeping of Cattle in Milk Colonies as Opposed to Traditional Village Units; Problems in Connection with the Keeping of Cows and Buffaloes in Urban Districts - Subject Chairman, H. Davelaar, UNICEF; Lecturer, Hans Pedersen, FAO.

This subject was discussed fully by the lecturer and several of the 150 members attending. The conclusion of the discussion was (a) in the interest of public health, and (b) for exercising better control on production and supplies of milk from cattle kept at present in cities, and (c) for the overall purpose of improving the standard of living of the rural and urban population, the cattle should be removed as soon as possible from the cities and resettled in rural areas. If this is not possible, then as an interim measure they should be removed to colonies or special settlements. Steps should be taken through legislation to prevent additional cattle from being brought into the cities. The program of supplying milk to cities should be so organized that the development of milk production in rural areas is given highest priority.

Subject 2 - Keeping Qualities of Milk Produced in Tropical Countries with Special Reference to Processing and Long Distance Transport - Subject Chairman, R. P. Delpech, Argentina; Lecturer, V. Kurien, India.

The lecturer reviewed the several papers submitted on this subject before the 125 people present. Considerable discussion followed relating to the maintenance of quality of milk during production, holding, transporting, and distribution; the processing of milk including sterilization and the possible use of hydrogen peroxide used as a preservative.

The conclusion included a suggestion to FAO to further study the requirements for production, holding, transporting, processing and distributing milk in tropical countries and to advise officials in these countries on economic methods for developing the dairy industries. There is need for specialized training, such as short courses for herdsmen and dairy plant operators.

RESUME OF SYMPOSIA

Symposium I.- Liquid Milk Packaging - Chairman, K. A. Wegener, Denmark; Speakers - J. M. Nesbitt, Canada; A. O. Hougen, Norway.

The speakers addressed themselves to the question of the advantages and disadvantages of the use of both returnable and non-returnable packages for liquid milk distribution. It was pointed

out that both types are useful, depending on the individual setup and the market. The use of non-returnable packages probably will increase, as seems to be the case in the U. S. There is need for more research into the economical and practical use of different kinds of packages. These studies should also include information on acceptability and consumer preference and on the effect of the package on the life and quality of milk.

Symposium II - Advantages and Disadvantages of the Latest Methods for Continuous Butter-Making - Chairman, W. Ljung, Sweden; Speakers - A. P. Belousov, USSR; L. Eisenreich, Denmark.

The speakers put forward the proposition that there is need for uniform nomenclature for continuous methods of butter manufacture. This recommendation was referred to IDF for their consideration.

Symposium III - Rindless Cheese - Technical and Economic Aspects - Chairman, O. Langhard, Switzerland; Speakers - A. H. Johnson, U. S.; M. E. Schulz, W. Germany.

The first speaker defined true rindless cheese as cheese in which a rind is not formed during manufacture or ripening. He also defined the properties required in the film for covering the various kinds of cheeses. The second speaker took the position that cheese with edible rind is in the same category as process cheese. It was concluded that there is need for (a) a clear definition for rindless cheese; and (b) clear quality standards should be established for rindless cheese.

Symposium IV - Ways to Increase Consumption of Milk and Dairy Products in Various Parts of the World - Chairman, J. J. Walker, New Zealand; Speakers, N. Verlinsky, Israel; F. Procter, Great Britain.

This symposium dealt with possible ways of increasing the consumption of milk and milk products by increasing education and advertising; by conducting more research on nutritive values of milk; by correcting the public exaggerations of the possible role of milk fat in high blood cholesterol and heart disease; and by making milk and milk products higher in quality and more easily available to consumers. A better coordination of publicity efforts among countries was urged.

Symposium V - Ways and Means of Developing the Dairy Industry in Warm Countries - Chairman, S. Matallana, Spain; Speakers, K. V. L. Kesteven, FAO; M. Lamer, FAO.

The lecturer and discussants concluded that to develop dairying in warm countries surveys should be made to ascertain the best locations for cattle raising with respect to climate,

feed supplies, etc., to develop more productive types of cattle, to train people in cattle raising and sanitary production of milk and to develop processing plants efficiently operated and accessible to consumption centers.

Symposium VI - The Milk Cow in the Prospective of the Modern Animal Psychology - Chairman, G. H. Hibma, Netherlands; Speakers - A. Kudryavtzev, USSR; W. E. Petersen, U. S.

This symposium was suggested by the USSR but their speaker did not attend. His paper was read in part by an interpreter. Following this, a Soviet delegate in the audience discoursed at length on the subject. The U. S. speaker gave his paper, which was well received by the audience. This paper provoked much discussion and concluded with the recommendation that in physiological and psychological investigations on the cow characteristic features of the easily and quickly milking types be sought so that they can be intensified by breeding and selection. The possibilities should be investigated of stimulating a quicker and more complete letdown of milk with the help of auxiliary stimuli.

RÉSUMÉ OF LECTURES

Lecture I - Organization of the Combatting of Contagious Diseases Among Dairy Cattle - Chairman, P. Kästli, Switzerland; Speaker, H. C. Bendixen, Denmark.

The speaker reviewed the work on combatting contagious diseases among cattle and described the methods and organization used in this work in different countries, particularly in Denmark and the U. S. He gave special attention to control of tuberculosis, foot-and-mouth disease, brucellosis and mastitis. He pointed out the need for the confidence and full cooperation of the farmer and the control officials in this work which is so essential to efficient milk production and to public health.

Lecture II - The Nutritional-Physiological Value of Milk and Dairy Products - Chairman, H. Mulder, Netherlands; Speaker, S. K. Kon, Great Britain.

This lecture dealt mainly with the question of heart disease and arteriosclerosis. He indicated that possibly there is a connection between these diseases and nutrition, but it is not proven that milk and butter are really harmful. Nutrition seems to be only one of the many factors responsible. The speaker emphasized that milk and its products are such important articles of diet that all efforts should be made to assure liberal consumption.

Lecture III - The Present and Future Economic and Social Position of the Dairy Industry - Chairman, R. Mork, Norway; Lecturer, B. van Dorn, Netherlands.

In presenting this subject the speaker pointed out that milk production and consumption took place mainly in the temperate regions. This was attributed not only to climate but also to economic and social conditions. In high economic areas, expenditure for milk and milk products increases more rapidly than the quantity consumed because more is spent on higher quality products. The elasticity of expenditure is lower in high income than in low income groups, while competition of other luxury foods is higher in high income groups. In such groups milk competes more with T.V., etc.

In 1955 European farmers received 55 percent of the consumer dollar compared to 40 percent for the U. S. farmer. The economic future of the dairy industry in developed countries is less certain than in the past and they face difficult problems. Increased efforts must be made to develop new and better products and to increase selling effort. More liberal marketing policies, such as envisioned in the common market, will affect the dairy industry.

RÉSUMÉ OF COLLEAGUES' MEETINGS

A new innovation introduced at this Congress was the Colleagues Meetings. These were gatherings in the late afternoon where people interested in a particular area of work could meet together and over coffee informally discuss mutual topics. The meetings were not organized beyond suggesting the general theme for discussion. They were well attended and those who participated felt that the meetings were well worthwhile. The meeting topics are listed below:

1. Science, teaching, research and control.
2. Dairy technology - butter, cheese, concentrated and dried milks.
3. Organization and legislation.
4. Milk production.
5. International commerce and advertising.
6. Dairy technology - liquid milk and ice cream.

THE CONGRESS CONCLUDING STATEMENTS

The final general meeting of the Congress was held at 1.30 P.M. September 7, 1962. This meeting afforded an opportunity for the President of the Executive Committee of the Danish National Committee to make a concluding statement regarding the success of the meeting and to thank all those who helped organize it and those who attended and participated.

It also afforded opportunity for the President of The International Dairy Federation to thank the King and Queen, the Danish Government, The Danish Dairy Federation, and the Danish National Committee for so effectively organizing and conducting the 16th International Dairy Congress. He announced that the 17th International Dairy Congress will be organized in the Federal Republic of West Germany in 1966, the host city to be decided later. He also announced that the 1963 annual meeting of the International Dairy Federation will be held in New Zealand, the host city to be named later.

The following Congress statement was then read and accepted:

"The performance of the XVI Congress has produced further proof of the concept that International Dairy Congresses contribute extensively to the experience and knowledge of all parties concerned with the production, processing and marketing of milk and dairy products.

"The full audiences attending the meetings where 29 subjects of foremost interest to the dairy world were considered, testified of the ever increasing necessity for a broader insight into the most recent views on dairy problems.

"In the meetings, several statements found general acceptance. Well defined conclusions were reached and recommendations were adopted. They will all be published in full shortly in the final Congress volume which will contain the minutes of all the meetings of the Congress.

"The final plenary meeting of the Congress called special attention to and endorsed the following:

1. Outstanding results have already been achieved in the fight against contagious diseases. A number of these are gradually coming under control. International cooperation is indispensable in this field.

2. Breeding policies should always be framed in such a way as to ensure that the protein content of milk as well as the fat content is maintained at a suitably high level.

Research on the physiology and biochemistry of milk secretion should be intensified and increased.

3. To protect milk from flavour defects efficient steps should be taken such as:

- (a) All copper equipment should be avoided on the farm and in the dairy plant
- (b) Milk should be protected against light
- (c) Processing that incorporates oxygen into the milk should be avoided.

4. The attention of IDF is drawn to the desirability of achieving some degree of standardization (1) of methods of measuring the physical properties of butter and (2) of the terms used to describe the properties measured.

5. The mechanization of cheese manufacture is of importance to the future economy of the cheese industry. The effect and proper control of acid development in the manufacture of cheese must remain well in the forefront in the consideration of any system in cheesemaking.

6. The need was underlined for international conformity of nomenclature for casein components.

7. Where milk has been cooled at low temperatures for long periods, it is desirable to preincubate samples before carrying out tests. Further, it will be helpful both from the point of view of hygiene and the assessment of milk for processing, to develop new and simple tests for the identification and determination of the species of bacteria concerned.

8. It is recommended that the good work done by IDF on behalf of programmes to eliminate residues in milk, particularly antibiotics, be continued specially in the area of antibiotic tracer techniques.

9. It is recommended that (a) in the interest of public health, (b) for exercising better control on production and supply of milk from cattle kept at present in the cities, and (c) for the overall purpose of improving the standard of living of the rural population, the cattle should be removed as soon as possible from the cities and resettled in rural areas. If this is not possible, then, as an interim measure, they should be removed to colonies or special settlements. Steps should also be taken urgently to prevent additional cattle from being brought into the cities through adequate legislation. The programme of supplying milk to cities should be so organized that the development of milk production in rural areas is given the highest priority.

10. It is recommended to intensify the adoption of suitable steps to study closely the conditions of production, handling and transport of milk in warm countries, and advise them on: (a) economic methods of sanitary milk production in villages, and (b) equipment suitable for chilling or heat treatment of milk and also containers and vehicles for transport to distant centers.

11. The application of new materials with specific properties and the use of modern techniques such as automation impose higher requirements as to the training of the staff.

12. It is important that efforts be made to create a greater variety of dairy products to increase consumption in view of difficulties in marketing.

13. Far too little is known about atherosclerosis, to be able to make definite conclusions as to an implication of milk fat. At the present time there is very little reason to criticize milk fat as a desirable ingredient of a mixed diet.

14. The protein of milk is of a basic importance in the betterment of nutrition, especially where food supplies are nutritionally inadequate.

15. For the time being, there would appear to be little basis for concern with respect to the strontium-90 content of milk.

Attempts provoked by a substantially higher fallout to limit milk consumption because of its contents of radioactive residues would assuredly result in more serious problems in the nutrition particularly of infants and children."

The meeting adjourned at 2.15 P.M.

RESUME OF THE SOCIAL ACTIVITIES

A full schedule of social events was arranged for by the Organizing Committee. All events were informal. They were very well organized and effectively presented. The social events are listed as follows:

1. Reception at National Dairy Exhibition - Open to all registrants - This reception afforded the members an opportunity to view the exhibition of the national dairy produce and dairy machinery arranged for by the principal organizations of the Danish dairy industry. At this exhibition there was an excellent exhibit of Danish cheeses and butter with demonstrations of the quality control programs used in their production.

A very large exhibit of the most modern dairy machinery available was attractively displayed for viewing. Refreshments were served.

2. Town Halls Reception - Open to all registrants - The City Councils of Copenhagen, Frederiksberg and Gentofte acted as hosts to this reception in their respective Town Halls. Appropriate ceremonies, programs and refreshments were available.

3. The Congress Evening - Open to all registrants - This function was the official Congress banquet and consisted of a dinner and dancing.

4. Danish Government Dinner - Open to heads of delegations - The Minister of Agriculture, The Honorable Karl Skytte, was host to this banquet in honor of the heads of delegations and their wives. Some 300 attended and a very enjoyable occasion it was. Greetings were extended by the Minister and the response was made by the President of the International Dairy Federation, Mr. A. M. Guerault of France.

5. Luncheon for Liaison Officers - Open to country Liaison Officers - This noon luncheon was held on board the Steamship Barnhalm in the harbor of Copenhagen. The President of the Danish National Committee, Mr. S. Overgaard, and the Secretary General, Mr. P. Kock Henriksen, were hosts to about 60 liaison officers at this fine luncheon.

6. Reception for Program Officers - Open to members who acted as Officers in the Congress Program - The Secretary General, Mr. P. Kock Henriksen, acted as host at a cocktail party for the technical program officers on board the Barnhalm, an occasion that was enjoyed by all who attended.

7. Reception at Frederiksborg Palace - Following the concluding program of the Congress, the official delegates and their wives from the 59 countries traveled by bus to Frederiksborg Palace, 25 miles out of Copenhagen, where they were received by Their Majesties, King Frederik IX, Queen Ingrid, and Princesses Benedictine and Margrethe. The Royal Family greeted everyone in line. During refreshments King Frederik IX received and visited with the head of each country's delegation. This was a most effective and enjoyable reception.

LADIES PROGRAM

Under the leadership of Mrs. P. Kock Henriksen, a full ladies program was carried throughout the week. The wife of each delegate received a bouquet of flowers in her hotel room following registering. During each day of the Congress tours were arranged

which included visits to firms, social institutions, museums, and places of scenic interest in Copenhagen and its environs. Demonstrations of Danish cookery were put on daily. These events were fully attended and enjoyed by the lady members attending the Congress.

OTHER CONGRESS ARRANGEMENTS

1. Film Exhibition - Some 40 films covering various aspects of the dairy industry were selected from different countries which offered them and were shown daily in a cinema hall for the viewing of members. Five of the films submitted from the U. S. were included in this exhibition. The titles of these films and the producing organizations are:

New Horizons Along The Milky Way - Union Pacific Railroad,
Omaha, Nebraska.

The Fourth Sense - International Association of Ice Cream
Manufacturers, Washington, D. C.

Of Town and Country - International Association of Ice Cream
Manufacturers, Washington, D. C.

The New Story of Milk - Ex-Cell-O Corporation, Detroit,
Michigan

Homer's Holiday - Kraft Foods International, Chicago, Illinois

2. International Book Exhibition - A local publishing house arranged an exhibition, for the viewing of the members, of international technical literature on dairying. Each country had the privilege of submitting literature for exhibition.

3. Exhibition of Advertising and Propaganda Material - The Congress Management, in cooperation with IDF, had arranged an exhibit of advertising and propaganda material collected from countries which chose to submit it, for the viewing of the members. This material was attractively displayed and was of considerable interest.

4. Press Department - During the meetings a special press department was open to all members. Information regarding the progress of the meetings, press material, publications and photographs was available to all members. Considerable information concerning the Congress meetings was noted in the local press.

PROGRAM OF EXCURSIONS

Thirty-three different excursions were organized and offered the Congress members for the purpose of giving them an opportunity to visit and inspect farms, factories, and research and educational institutions having to do with Danish dairying and to view scenic

and historic points throughout Denmark. The tours were classified into two categories. Category 1 were half-day or one-day tours that were offered during the days of the meetings and category 2 were two and three-day tours that took place after the Congress. These tours were popular with the members.

A STATEMENT ON THE INTERNATIONAL DAIRY FEDERATION

In view of the fact that the International Dairy Federation sponsors the International Dairy Congress meetings, it is felt advisable to include in this report a statement about this organization. This statement, taken from the program booklet of the 16th International Dairy Congress, is as follows:

"After the first International Dairy Congress, in September 1903, organized by the National Dairy Society of Belgium, the participants from 16 different countries decided to establish an International Dairy Federation. The IDF is, therefore, one of the oldest among international technical and scientific organizations in the field of dairying.

"From the beginning, the direction of the new Organization was delegated to an Executive Committee and a General Secretary, residing in Brussels.

"In its early stages, the task laid before the IDF was to promote the organization of International Dairy Congresses. Very soon, however, the initial Committee was faced with a large number of problems of international importance and these had to be transferred to a Commission of Studies. This Commission established close contacts with IDF National Committees in the member countries, in order to obtain the necessary information for its work.

"These activities came to a complete standstill during the First World War. When they resumed, it became evident that the rapid development of dairy technology and of dairying knowledge made it necessary to appoint, within the Commission of Studies, specialized Commissions. The Second World War again completely stopped IDF activities, which were resumed in December 1946.

"Since this date, IDF action has expanded continuously and, today in 1962, the Federation groups 28 member countries*, sending representatives to the following specialized Commissions:

* Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, Czechoslovakia, Denmark, Finland, France, Germany, India, Ireland, Israel, Italy, Japan, Kenya, Luxemburg, Netherlands, New Zealand, Norway, Poland, Spain, Sweden, Switzerland, United Kingdom, USSR.

IDF Commissions for Cheese, for Dried and Condensed Milks, for the Production of Milk, for Industrial Dairy Technique, for Chemical Analysis, for Microbiological Analysis, for Dairy Economics and for Dairying in Warm Countries.

"During the 1960 Annual Meetings a new Commission was established for studying Dairy Education.

"The working procedures of these Commissions and of the main bodies of IDF can be very briefly described as follows.

"Each year, each Special Commission has a Plenary Meeting during the Annual Meetings of IDF; the activities of the various Working Groups or Rapporteurs within each Commission are duly examined and the Programme for the coming year is accurately laid down. Those reports submitted to a Commission which are accepted and found valuable internationally are submitted to the General Assembly and, if so decided by the latter, may be published in the IDF Annual Bulletin. In addition to such technical or scientific reports, resolutions are made or recommendations issued to governments through the National Committees of the IDF member countries.

"The Commission of Studies supervises the work of the Special Commissions and also has a plenary meeting during the IDF Annual Meetings. The General Assembly takes the important decisions in all matters of current interest to IDF, generally after consulting with the Executive Committee. The latter regularly supervises administrative and financial matters and, more generally speaking, the policy of IDF. The General Secretariat, which has a permanent character, is still located in Brussels.

"The Federation, through the appropriate Commissions, prepares international standards which are submitted to FAO for inclusion in the Code of Principles on milk and milk products.

"The IDF enjoys consultative status with FAO and UNICEF and maintains excellent relations with the international agricultural organizations. Recently, an agreement was reached with ISO for the preparing of international standards.

"The International Dairy Federation also organizes Seminars where experts from member countries are called to discuss technical or scientific dairy problems. The 6th IDF Seminar took place in 1960 in Switzerland on the subject of the keeping quality of milk and the 7th Seminar was held in 1961 in Sweden

on the nutritive value of milk and dairy products. A full report on these meetings was given in the IDF Bulletins.

"The Federation promotes the organization of International Dairy Congresses by the National Committees of its member countries. After the Congress in Copenhagen in September 1962, the next Congress is scheduled to take place during 1966.

"In a changing world, where science and technique are constantly progressing towards new aims, the IDF remains faithful to its object of promoting through international cooperation the solution of scientific, technical and economic problems in the international dairy field."

CONCLUSION

The members of the U. S. delegation and the other U. S. participants greatly appreciated the opportunity to attend and participate in this Congress meeting. They appreciate the fact that the Government of the United States looks with favor on this official representation.

While many would like to see the International Dairy Congress meetings somewhat more technical than they are, they are firm in the belief that representation and contact between them and other scientists and technical people concerned with dairying throughout the world are valuable and should be continued and strengthened.

The dairy industry throughout the world, and especially in the U. S., is an important segment of agriculture and contributes importantly to the national welfare and to the food supply. U. S. dairy scientists and technical people have much to contribute to these meetings, but they also gain through participation to the betterment of our own dairy industry.

There remains the question of why the U. S. is not a member of the International Dairy Federation. There is a keen desire on the part of the Federation, which has a membership of 28 countries, to have the U. S. become a member. There is a growing interest among many in the U. S. to become affiliated with this international dairy organization. The question of the U. S. dairy industry forming a National Committee for Affiliation has been and continues to be under study.

